From: Story, Brent
Sent: Friday, September 30, 2011 2:24 PM
To: Acree, David; Achorn, Jacob; Adams, David; Adewale, Steve (Adesoji); Alexander, Angela; Alexander, Nicoe; Armster, Elaine; Baird, Corey; Baker, Jeff; Baker, Shamsul; Bassey, Anietie; Bastian, Clay; Baynes, Barry; Belford, Charity; Bennett, Matt; Bentley, Danielle; Black, Perry; Blanchard, Jon; Bowman, Glenn; Bradley, Michael; Brewer, George; Brigman, Terry; Brown, Chandria; Brown, Derrick M.; Burney, Cynthia; Busby, Jeremy T.; Bush, Sean; Butler, Toshiro; Caldwell, Michelle; Cameron, Derrick; Casey, Andy; Cashin, Ted; Chanthavong, Lamu; Clark, Otis; Clements, Mike; Clowers, Marlo; Comer, DeWayne; Copeland, Howard (Phil); Cox, Dave; Crabtree, Ted; Craig, Amelia; Crane, Jason; Cranford, Mac; Cross, Holly; D'Avino, Gail; Decker, Sue Anne; Dover, Mike; Dunn, Suzanne H; DuVall, Bill; Eadie, Anthony (Tony); Eagleton, Dylan L.; Ebodaghe, Abby; Ehrman, Bradley R.; Emmanuel, Peter; Fadool, Douglas; Fernandez, Ryan; Fisher, Carleton; Fletcher, Jeff; Ford, Clinton; Fowler, Krystal; Fowler, Matthew; Franks, Kenneth; Garrison, Donna; Geary, Georgene; Ghazi, Aghdas; Giasi, Anthony (Tony); Gibbs, Bryan; Golden, Keith; Gore, Kerry; Grant, Jack; Green, Henry; Griffin, Ralph (Sandy); Gwin, Kelly; Haithcock, Michael; Hale, Melanie; Hancock, John; Hasty, Charles A. (Chuck); Heath, Andrew; Hill, Stanley; Hilliard, Bobby; Hilliard, Jan; Hinton, Tonia; Hoge, David; Holder, Theresa; Hollaway, Bryan; Hopkins, Eugene; Howell, Thomas; Hughes, Robert; Ingalsbe, Bill; Jabaley, Joe; Joseph, Shajan; Kantner, Neil; Kassa Jr., Tamrat; Kassa, Habte; Kirby, Brandon; Kopotic, John M.; Lamar, Marcus; Lee, Scott; Liles, Paul; Lindsay, Derek; Lobdell, Mike; Luckett, Denise; Lynah, Darlene L.; MacLean, Scott; Mahoney, Robert; Malinak, Steve; Matthews, Karyn; Matthews, Steve; Matthews, Tim; McCook, Jason; McDuffie, Todd; McKenzie, William; McManus, Brad; McMurry, Russell; McQueen, Thomas; Mertz, Kaycee; Millen, David; Miller, Fletcher; Mitchell, Ulysses; Mobley, Jason; Mote, Kyle; Moyer, David; Mullins, Kelvin; Murphy, Robert; Myers, Lisa; Nesbitt, Kimberly; Norwood, David; O'Brien, Neal; Odom, Dennis; Parker, Jabari; Pass, Daniel; Patel, Hiral; Peevy, Phillip M.; Pegram, Vinesha C.; Peters, Dave; Phillips, Kim; Pirkle, Meg; Pitts, Eric; Poole, Bryant; Posey, Keith; Quarles, Johnny; Rabun, Ben; Rad, Nasser; Reed, Jack; Reid, Robert Lee Jr.; Rice-Singleton, Genetha; Richardson, Darrell; Robbins, David M; Robertson, Glenn; Robinson, Charles A.; Robinson, Ernay; Robinson, Merishia; Rodgers-Register, Charner; Rogers, Terry; Rohde, Erik; Rountree, Bill; Rudd, Christopher; Rushing, Byron; Safstrom, Lisa; Sager, Kent; Sanders, Matt; Saxon, Brad; Scruggs, Thomas; Sheffield, Joe; Shelby, Albert; Simpson, Jim; Simpson, Radney; Smith, Adam; Smith, Alan; Smith, Rick A; Stovall-Dixon, Krystal E.; Taylor, Joshua B.; Taylor, Walter; Thomas, Brent; Trigueros, Marco; VanDyke, Cindy; VanHouten, Kevin; VanMeter, Darryl; Waldrop, Melvin; Walker, Alan T.; Walker, Davida; Walker, Lesa; Ward, Winton; Washington, Andre M.; Welch, Albert (Butch); White, Chad; Williams, Glenn (Design Policy & Support); Wilson, Kinney; Wishon, Ron; Woods, Reuben; Woods, Sam; Wright, Michelle; Wright, William; Yokaris, Angelo; Zahul, Kathy; Zoeckler, David; David.Painter@dot.gov; Melinda.Roberson@dot.gov; Kendra.Bunker@dot.gov; Carlos.Figueroa@dot.gov; Christy.Poon-Atkins@dot.gov; William.Farr@dot.gov; Thompson, Ken; Collins, Tony (Division Director); Jones, Tony; Williams, Gabrielle; Walker, Steven; Williams, Rich; angel.correa@dot.gov
Cc: Golden, Keith; Ross, Gerald; Long, Todd; McMurry, Russell; Howell, Thomas; Magnus, James
Subject: "Rumble Strips" and "Pavement Edge Treatment (Safety Edge)"

After coordination between the Chief Engineer, Operations, Engineering, and Construction, the decision was made to designate GDOT design criteria for the placement of Rumble Strips as "standard" criteria. The criteria is published in the GDOT Design Policy Manual, **Chapter 6.5.1. Rumble Strips**. If it is not practical to provide rumble strips as defined in Table 6.1, then a decision to deviate from this criteria shall require a comprehensive study by an engineer and the prior approval of a Design Variance from the GDOT Chief Engineer.

The decision was also made to establish a Pavement Edge Treatment or "Safety Edge" as the standard treatment for the outside edge of all uncurbed pavements whether edge of travel lane

or shoulder (excluding pavement behind guardrail). The new criteria is published in the GDOT DPM, **Chapter 6.5.2. Pavement Edge Treatment**. A new Construction Detail P-7 has also been created and is published with the GDOT Construction Standards and Details. The method for calculating additional pavement quantities related to the Safety Edge is included on the Detail P-7. If it is not practical to provide the Safety Edge, then a decision to omit shall require a comprehensive study by an engineer and the prior approval of a Design Variance from the GDOT Chief Engineer.

Implementation: Any project scheduled for FFPR after January 1, 2012, will require the Safety Edge. The Safety Edge may be included on projects that have been to FFPR before January 1, 2012, at the discretion of the Project Manager and the Design Phase Leader.

http://www.dot.ga.gov/doingbusiness/PoliciesManuals/roads/DesignPolicy/GDOT-DPM-Chap06.pdf

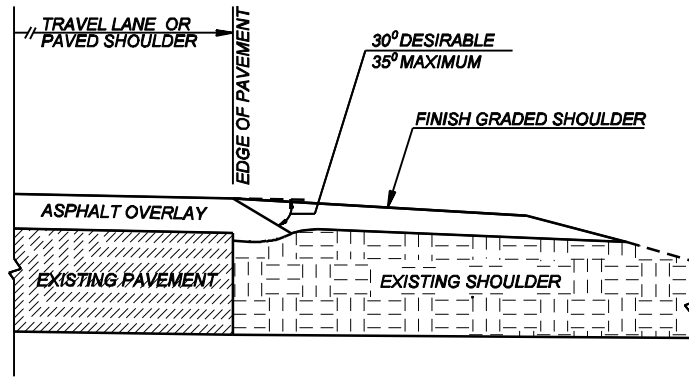http://standarddetails.dot.ga.gov/stds_dtls/

Brent A. Story, P.E.
State Design Policy Engineer
Georgia Department of Transportation
☎ **(404) 631-1600**

ASPHALT PAVEMENT - OVERLAY

TRAVEL LANE OR PAVED SHOULDER

EDGE OF PAVEMENT

30° DESIRABLE
35° MAXIMUM

FINISH GRADED SHOULDER

ASPHALT OVERLAY

EXISTING PAVEMENT

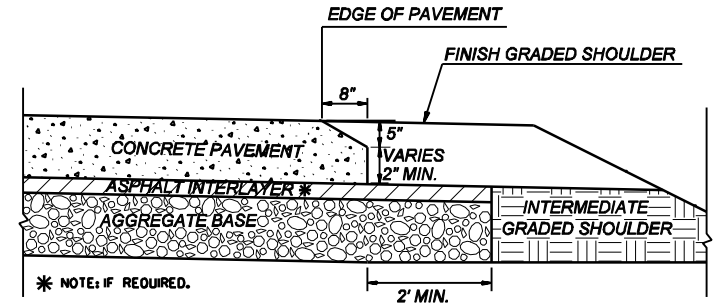EXISTING SHOULDER

ADDITIONAL QUANTITIES:
DEPTH OF OVERLAY (T), NO RUTTING
$(T)^2$ (IN.) X 0.000441 TN/IN.-FT X LENGTH (FT) = _____ TN

DEPTH OF OVERLAY (T), WITH 1 IN. RUTTING
$(T)^2$ (IN.) X 0.000441 TN/IN.-FT X LENGTH (FT) + (T) (IN.) X 0.000882 TN/IN.-FT X LENGTH (FT) = _____ TN

ASPHALT PAVEMENT - NEW

TRAVEL LANE OR SHOULDER

EDGE OF PAVEMENT

30° DESIRABLE
35° MAXIMUM

FINISH GRADED SHOULDER

SURFACE COURSE

BINDER COURSE

ASPHALT BASE ✱

AGGREGATE BASE

INTERMEDIATE GRADED SHOULDER

✱ NOTE: IF REQUIRED.

ADDITIONAL QUANTITIES:
SURFACE COURSE PAVING DEPTH (T)
$(T)^2$ (IN.) X 0.000441 TN/IN.-FT X LENGTH (FT) = _____ TN

GENERAL NOTES:

1. THE SAFETY EDGE SHALL BE CONSTRUCTED AS AN INTEGRAL OPERATION OF THE ROADWAY PAVEMENT PLACEMENT PROCESS.

(ASPHALT PAVEMENT)

2. USE AN APPROVED MECHANICAL DEVICE THAT WILL:
   1. APPLY COMPACTIVE EFFORT TO THE ASPHALT MIXTURE TO ELIMINATE OBJECTABLE VOIDS AS THE MIXTURE PASSES THROUGH THE WEDGE DEVICE.
   2. PRODUCE A WEDGE WITH A UNIFORM TEXTURE, SHAPE, AND DENSITY WHILE AUTOMATICALLY ADJUSTING TO VARYING HEIGHTS ENCOUNTED ALONG THE ROADWAY SHOULDER.

3. A SINGLE-PLATE STRIKE-OFF METHOD SHALL NOT BE USED FOR BITUMINOUS PAVING, AS THE SINGLE-PLATE STRIKE-OFF METHOD HAS BEEN FOUND TO PRODUCE A NON-DURABLE EDGE.

4. COMPACTION OF THE EDGE SHOULD NOT BE DONE WITH THE FIRST PASS OF THE ROLLER; WITH THE ROLLER STAYING OFF THE EDGE AT LEAST 6 INCHES. THIS IS IN ORDER TO ALLOW THE EDGE MIX TO SLIGHTLY COOL PRIOR TO COMPACTION.

5. SHORT SECTIONS OF HANDWORK ARE ALLOWED, WHEN NECESSARY, FOR TRANSITIONS AND TURNOUTS.

PLAIN PC CONCRETE PAVEMENT OR ROLLER COMPACTED CONCRETE PAVEMENT

EDGE OF PAVEMENT

FINISH GRADED SHOULDER

8"

CONCRETE PAVEMENT

5" VARIES 2" MIN.

ASPHALT INTERLAYER ✱

AGGREGATE BASE

INTERMEDIATE GRADED SHOULDER

2' MIN.

✱ NOTE: IF REQUIRED.

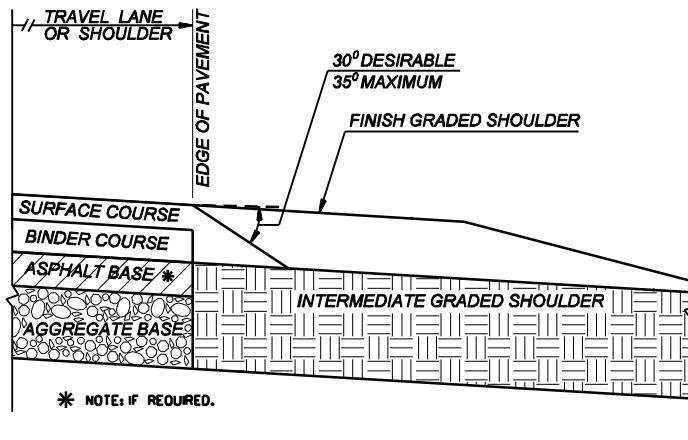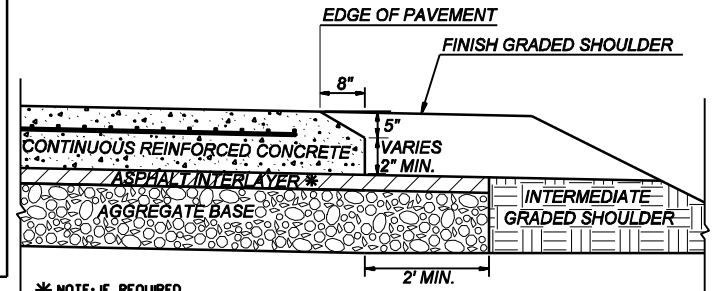ADDITIONAL QUANTITIES:
CONCRETE
0.07407 SY/FT X LENGTH (FT) = _____ SY

ASPHALT INTERLAYER, IF REQUIRED
(T) IN. X LENGTH (FT) X 0.004074 TN/IN.-FT = _____ TN

AGGREGATE BASE (BASED ON 2.07 TN/CY)
(T) IN. X LENGTH (FT) X 0.0042592 TN/IN.-FT = _____ TN

CONTINUOUS REINFORCED CONCRETE PAVEMENT

EDGE OF PAVEMENT

FINISH GRADED SHOULDER

8"

CONTINUOUS REINFORCED CONCRETE

5" VARIES 2" MIN.

ASPHALT INTERLAYER ✱

AGGREGATE BASE

INTERMEDIATE GRADED SHOULDER

2' MIN.

✱ NOTE: IF REQUIRED.

ADDITIONAL QUANTITIES:
CONCRETE
0.07407 SY/FT X LENGTH (FT) = _____ SY

ASPHALT INTERLAYER, IF REQUIRED
(T) IN. X LENGTH (FT) X 0.004074 TN/IN.-FT = _____ TN

AGGREGATE BASE (BASED ON 2.07 TN/CY)
(T) IN. X LENGTH (FT) X 0.0042592 TN/IN.-FT = _____ TN

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAIL
PAVEMENT EDGE TREATMENT
ASPHALT AND CONCRETE PAVEMENT

NO SCALE   SEPTEMBER 2011

DES.	B.A.S.
DRW.	C.L.O.
CHK.	D.C.P.
REVIEW	B.A.S.

NUMBER
P-7